Body System: Women's Health

Session Topic: First Trimester Bleeding

Educational Format		Faculty Expertise Required
REQUIRED	Interactive Lecture	Expertise in the field of study. Experience teaching in the field of study is desired. Preferred experience with audience response systems (ARS). Utilizing polling questions and engaging the learners in Q&A during the final 15 minutes of the session are required.
OPTIONAL	Problem-Based Learning (PBL)	Expertise teaching highly interactive, small group learning environments. Case-based, with experience developing and teaching case scenarios for simulation labs preferred. Other workshop-oriented designs may be accommodated. A typical PBL room is set for 50-100 participants, with 7-8 each per round table. Please describe your interest and plan for teaching a PBL on your proposal form.

Professional Practice Gap	Learning Objective(s) that will close the gap and meet the need	Outcome Being Measured
• Differential diagnosis of abnormal uterine bleeding (AUB) is often challenging. • Referral and coordination of care is often suboptimal for patients with AUB. • Physicians do not consistently use a standardized classification system for AUB. • Physicians lack an overall awareness of current evidence on effectiveness of treatment options for AUB. • Physicians are frequently not trained in developing collaborative care plans with patients, based on their treatment choice, tolerance, and clinical risk profile when selecting a therapeutic intervention for the management of abnormal uterine bleeding.	1. Detect abnormalities during the first trimester of a patient, that vary from the normal progression of pregnancy. 2. Differentiate between possible causes of first trimester bleeding, including ectopic pregnancy and miscarriage. 3. Identify when a woman experiencing a miscarriage may require the dilation and curettage procedure. 4. Provide appropriate follow-up care and make referrals to mental health professionals when necessary. 5. Recommend appropriate doses of Rhogam and/or folic acid following a miscarriage and prior to further attempts at conception.	Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement presented practice recommendations.

ACGME Core Competencies Addressed (select all that apply)

X	Medical Knowledge		Patient Care
X	Interpersonal and Communication Skills		Practice-Based Learning and Improvement

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	Professionalism		Systems-Based Practice

Faculty Instructional Goals

Faculty play a vital role in assisting the AAFP to achieve its mission by providing high-quality, innovative education for physicians, residents and medical students that will encompass the art, science, evidence and socio-economics of family medicine and to support the pursuit of lifelong learning. By achieving the instructional goals provided, faculty will facilitate the application of new knowledge and skills gained by learners to practice, so that they may optimize care provided to their patients.

- Provide up to 3 evidence-based recommended practice changes that can be immediately implemented, at the conclusion of the session; including SORT taxonomy & reference citations
- Facilitate learner engagement during the session
- Address related practice barriers to foster optimal patient management
- Provide recommended journal resources and tools, during the session, from the American Family Physician (AFP), Family Practice Management (FPM), and Familydoctor.org patient resources; those listed in the References section below are a good place to start
    - Visit http://www.aafp.org/journals for additional resources
    - Visit http://familydoctor.org for patient education and resources
- Provide recommendations for detecting abnormalities during the first trimester of a patient, that vary from the normal progression of pregnancy.
- Provide recommendations for differentiating between possible causes of first trimester bleeding, including ectopic pregnancy and miscarriage.
- Provide recommendations for identifying when a woman experiencing a miscarriage may require the dilation and curettage procedure.
- Provide recommendations for providing appropriate follow-up care and make referrals to mental health professionals when necessary.
- Provide recommendations regarding the appropriate doses of Rhogam and/or folic acid following a miscarriage and prior to further attempts at conception.

Needs Assessment

Approximately 15% - 25% of all pregnant women experience spotting or bleeding in the first several weeks of pregnancy, and one half of those who bleed will miscarry.[1,2] Some studies suggest an increase in the number of emergency room visits for vaginal bleeding during early pregnancy; with rates highest in the 20-29 age group, and patients more likely to be black, Hispanic, and uninsured.[3]

Practice Gaps

CME outcomes data from 2012 and 2013 AAFP Assembly: *Abnormal Uterine Bleeding and Amenorrhea* sessions suggest that physicians have knowledge and practice gaps with regard to differential diagnosis of AUB; effective use of a classification system (e.g. PALM-COEIN) to describe uterine bleeding abnormalities in women of reproductive age; initial evaluation and appropriate use of lab tests and imaging; and selecting appropriate therapies.[4,5]

Physicians may improve their care of patients experiencing first-trimester bleeding by engaging in continuing medical education that provides practical integration of current evidence-based

guidelines and recommendations into their standards of care, including, but not limited to the following:[2,6,7]

- Evidence does not support the routine use of antibiotics in all women with incomplete abortion.
- A normal pregnancy should exhibit a gestational sac when beta subunit of human chorionic gonadotropin levels reach 1,500 to 2,000 mIU per mL (1,500 to 2,000 IU per L), a yolk sac when the gestational sac is greater than 10 mm in diameter, and cardiac activity when the embryonic crown-rump length is greater than 5 mm.
- Because expectant and surgical management of miscarriage are equally effective, the patient's preference should play a dominant role in choosing a treatment.
- When the patient has an incomplete abortion, nonsurgical treatments have a high likelihood of success; when the patient has an embryonic demise or anembryonic pregnancy, misoprostol (Cytotec) or surgical treatment is more effective than expectant treatment.
- Vaginal misoprostol is safer and more effective than oral misoprostol, with fewer gastrointestinal side effects.
- After a first trimester pregnancy loss, patients who are Rh negative should receive 50 mcg of anti D immune globulin.
- Acknowledgment of grief, sympathy, and reassurance are useful techniques in counseling patients after miscarriage.
- The most common symptoms of an unruptured ectopic pregnancy are first-trimester bleeding and abdominal pain.
- Transvaginal ultrasonography is a reliable way to differentiate between viable and nonviable pregnancies and should be performed when early pregnancy loss is suspected.
- Because better mental health outcomes result when patient preferences for treatment are respected and because all treatment options are safe, expectant management, medical management with misoprostol (Cytotec), and uterine aspiration should be offered to women for the treatment of early pregnancy loss.
- Given that expectant management is up to 90 percent effective, it is a reasonable first-line option for incomplete abortion.
- Compared with expectant management, medical management with misoprostol hastens completed abortion, especially in cases of anembryonic gestation and embryonic demise.
- Compared with dilation and curettage in the operating room, uterine aspiration is the preferred procedure for early pregnancy loss because aspiration is equally safe, quicker to perform, more cost-effective, and amenable to use in the primary care setting.
- There is insufficient evidence to recommend routine antibiotic prophylaxis following uterine aspiration.
- Women experiencing early pregnancy loss should be reassured that subsequent fertility is not adversely affected by any of the three treatment options (expectant care, medical management with misoprostol, or uterine aspiration).

These recommendations are provided only as assistance for physicians making clinical decisions regarding the care of their patients. As such, they cannot substitute for the individual judgment brought to each clinical situation by the patient's family physician. As with all clinical reference resources, they reflect the best understanding of the science of medicine at the time of publication, but they should be used with the clear understanding that continued research may

result in new knowledge and recommendations. These recommendations are only one element in the complex process of improving the health of America. To be effective, the recommendations must be implemented. As such, physicians require continuing medical education to assist them with making decisions about specific clinical considerations.

Resources: Evidence-Based Practice Recommendations/Guidelines/Performance Measures

- First trimester bleeding[2]
- Office management of early pregnancy loss[6]
- Diagnosis and management of ectopic pregnancy[7]
- Integrating a behavioral health specialist into your practice[8]
- Familydoctor.org - Abnormal Uterine Bleeding | Overview (patient education)[9]
- Familydoctor.org - Bleeding in Early Pregnancy (patient education)[10]

References

1. Hasan R, Baird DD, Herring AH, Olshan AF, Jonsson Funk ML, Hartmann KE. Association Between First-Trimester Vaginal Bleeding and Miscarriage. *Obstet Gynecol.* 2009;114(4):860-867.
2. Deutchman M, Tubay AT, Turok D. First trimester bleeding. *American family physician.* 2009;79(11):985-994.
3. Wittels KA, Pelletier AJ, Brown DF, Camargo CA, Jr. United States emergency department visits for vaginal bleeding during early pregnancy, 1993-2003. *American journal of obstetrics and gynecology.* 2008;198(5):523 e521-526.
4. American Academy of Family Physicians (AAFP). 2012 AAFP Scientific Assembly: CME Outcomes Report. Leawood KS: AAFP; 2012.
5. American Academy of Family Physicians (AAFP). 2013 AAFP Scientific Assembly: CME Outcomes Report. Leawood KS: AAFP; 2013.
6. Prine LW, MacNaughton H. Office management of early pregnancy loss. *American family physician.* 2011;84(1):75-82.
7. Barash JH, Buchanan EM, Hillson C. Diagnosis and management of ectopic pregnancy. *American family physician.* 2014;90(1):34-40.
8. Reitz R, Fifield P, Whistler P. Integrating a behavioral health specialist into your practice. *Family practice management.* 2011;18(1):18-21.
9. FamilyDoctor.org. Abnormal Uterine Bleeding | Overview. 2000;
10. FamilyDoctor.org. Bleeding in Early Pregnancy. 2014;

